

NEW ABOVE GROUND STORAGE TANK (AST) REQUIREMENTS

San Diego County APCD
101 Old Grove Road
San Diego, CA 92131
www.sdapcd.org



4/30/2012

Presentation Overview



2

- ❑ General Overview of Phase I and Phase II
- ❑ Overview of Standing Loss and Phase I/II Enhanced Vapor Recovery (EVR).
- ❑ Standing Loss Requirements
- ❑ AST EVR Status
- ❑ Compliance Deadlines
- ❑ Compliance Outreach

Phase I and II Overview

3

Phase I Vapor Recovery System – equipment that recovers gas vapors generated during the transfer of gas from the mobile transport tanks to the stationary storage tanks.

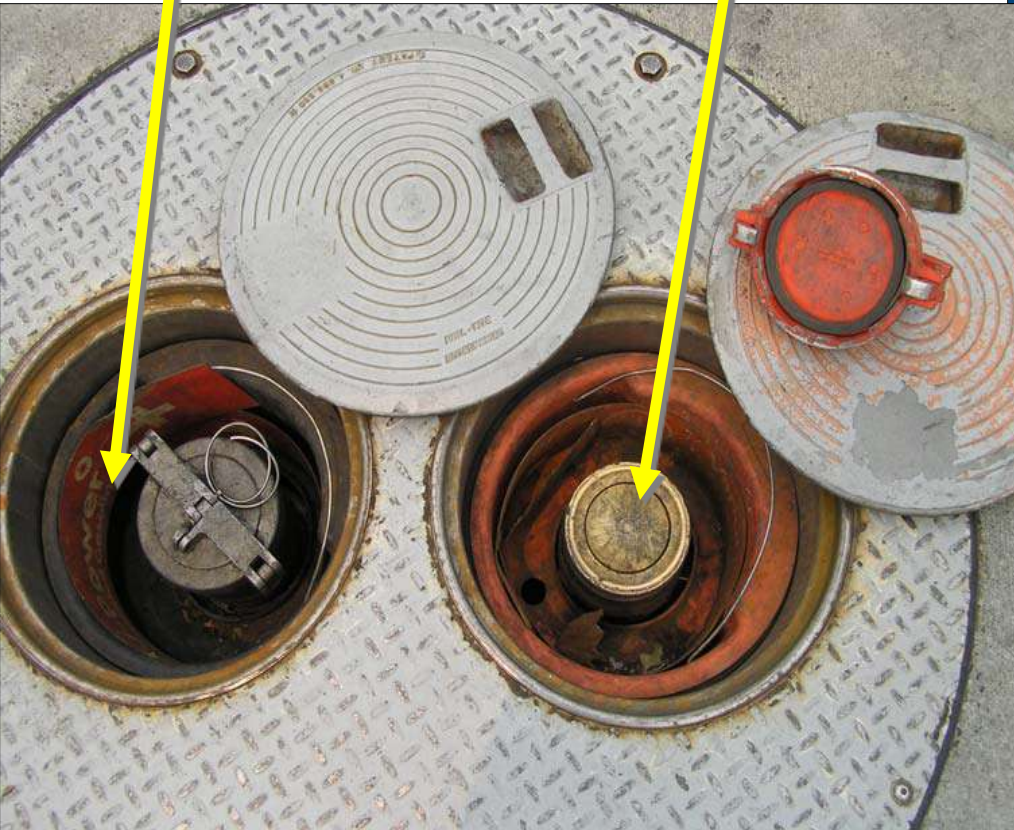
□ **Phase II Vapor Recovery System** – equipment that recovers and contains vapors displaced during vehicle refueling events.

□ Dispensers are fitted with nozzles, hoses, and vapor return lines that transfer the displaced vapors from the motor vehicle back to the stationary storage tanks.

Phase I System Components

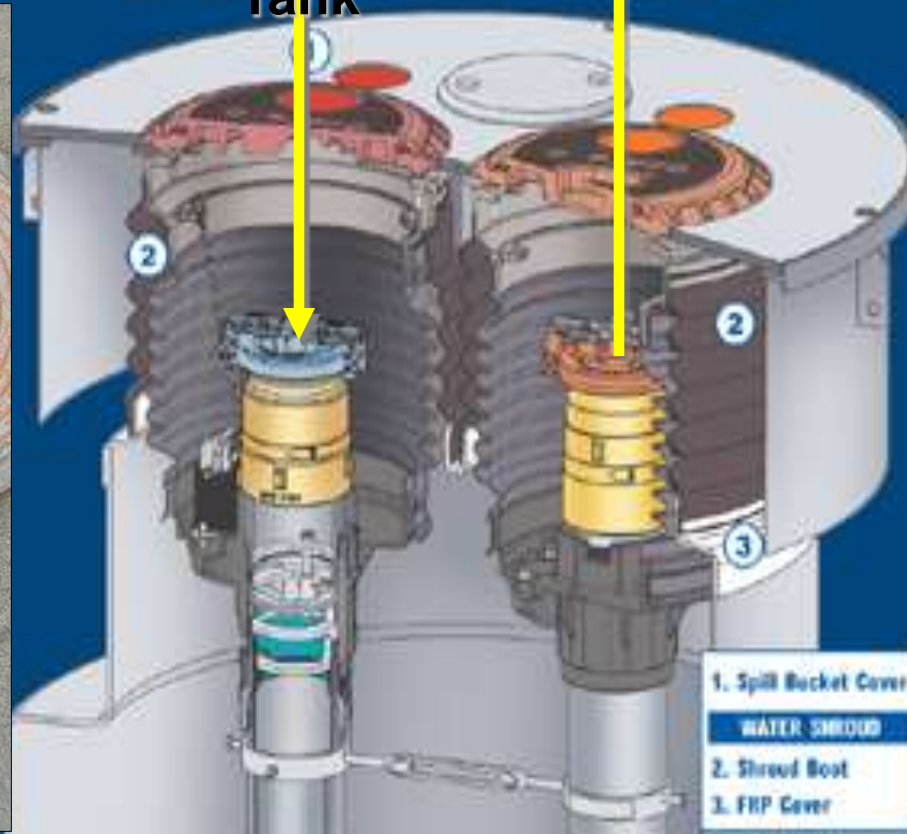
**Product Adaptor
& Spillbucket**

**Vapor
Adaptor**

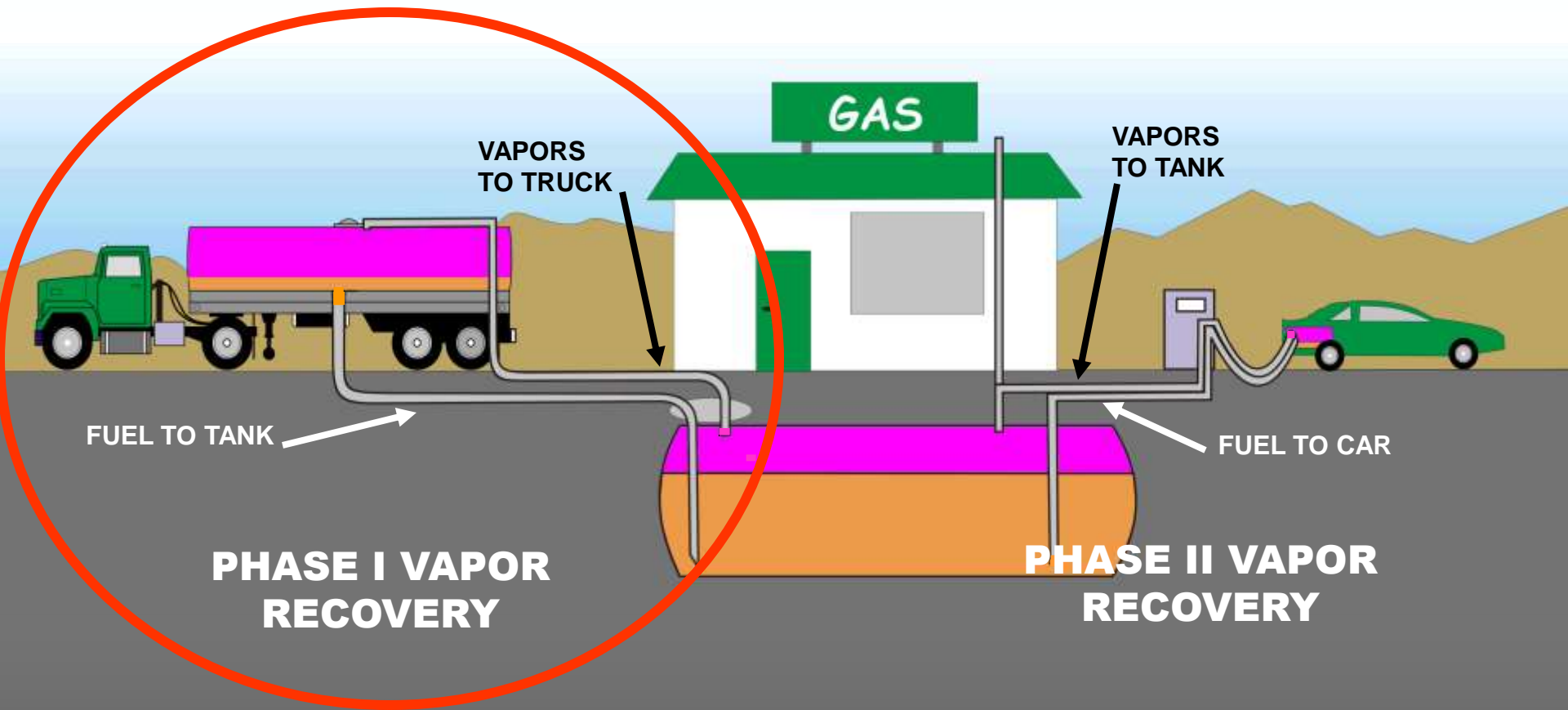


**Product
into the
Tank**

**Vapors to the
Mobile
Tank/Truck**



How does a Vapor Recovery System Capture Gasoline Vapors?



No Vapor Recovery System?

6

□ Short Video:

Fueling Events with VR System Disabled:

<http://www.arb.ca.gov/videos/fuel-ir-visual.wmv>

Overview of Standing Loss and Phase I/II EVR

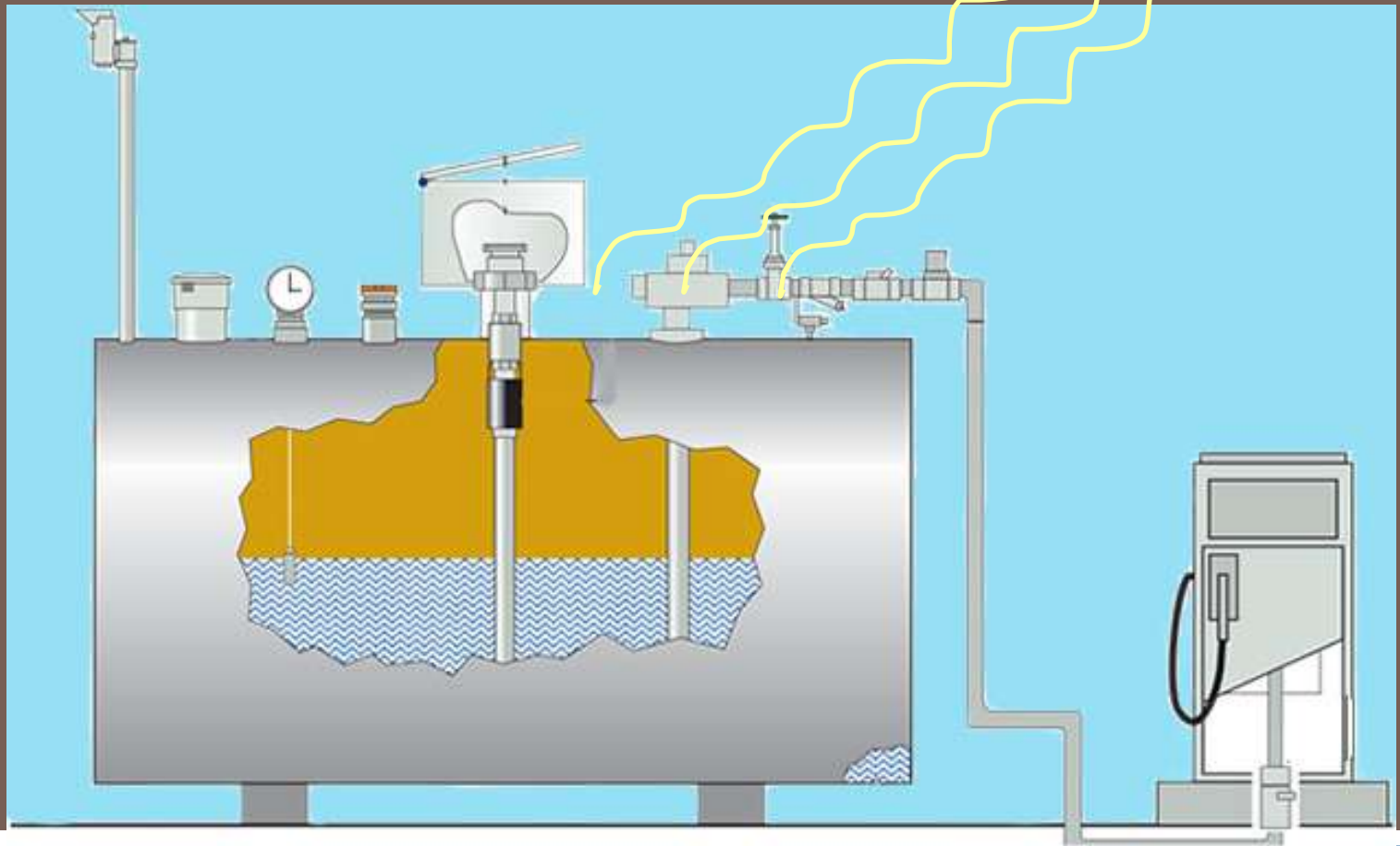


7

Standing Loss

- ▣ Standing losses are evaporative emissions that escape through open vent pipes and leaks in the tank.
- ▣ New requirement intended to reduce gasoline temperatures inside AST's to minimize evaporation.
- ▣ Applies to All (retail and non-retail) AST's with a capacity of 250 gallons or greater.

AST Without Standing Loss Control



Overview of Standing Loss and Phase I/II EVR



9

Phase I and II Enhanced Vapor Recovery (EVR)

- ▣ The intent of Phase I and II EVR is to further reduce AST emissions by replacing less effective existing equipment (e.g. vapor adaptors, product adaptors, etc) with similar equipment that meets the more stringent EVR standards.

Phase I EVR applies to:

- 1) AST's at retail Gasoline Dispensing Facilities (GDF's) with a capacity of 260 gallons or greater.
- 2) AST's at non-retail GDF's with a capacity greater than 550 gallons.

Overview of Standing Loss and Phase I/II EVR



10

- **Phase II EVR applies to:** AST's where Phase I EVR is required and more than 2,000 gallons are transferred into motor vehicle tanks in any calendar month.

Standing Loss Requirements



11

- ☐ Existing AST systems must apply certified coatings if they are not insulated (protected) and install a pressure vacuum (P/V) vent valve whether protected or not by April 1, 2013. A list of certified coatings and protected tanks are listed in Exhibit#1 of Executive Order (E.O.#) VR-301-C.
- ☐ AST systems installed after April 1, 2009 must be insulated (protected) and equipped with a pressure vacuum (P/V) vent valve. A list of certified protected tanks can be found in Exhibit#1 of E.O. #302-C.
- ☐ AST's with a capacity of greater than 250 gallons will now require annual P/V Valve and Pressure Decay Testing.

Standing Loss Requirements

12

- ▣ Husky 5885 EVR Pressure Vent Valve (P/V).



Inspection/Recordkeeping Requirements



13

- ❑ EVR will now require periodic inspections and maintenance as well as recordkeeping. These requirements are outlined in EVR Executive Orders.
- ❑ Records of inspections and maintenance will now be required to be maintained onsite and readily available.

AST EVR Status



14

- ❑ Currently there are two E.O.'s for EVR Standing Loss Requirements.
 - 301-C for existing tanks installed prior to April 1, 2009.
 - 302-C for tanks installed after April 1, 2009.
- ❑ Currently there are two Phase I EVR AST systems: OPW EO#VR-401-B and Morrison Brothers E.O.#402-A.
- ❑ To date, the California Air Resources Board has not certified a Phase II EVR system.

Permitting Requirements



15

- Prior to upgrading an AST to meet Standing Loss or Phase I EVR Requirements, the AST owner/operator must submit an application and obtain an Authority to construct from the District.
- AST's associated with agricultural operations are exempt from both EVR and District Permit requirements.

Compliance Deadlines



16

Requirements	NEW AST	Existing AST
Standing Loss	January 1 st 2009	April 1 st 2013 (It is possible to combine the Phase I EVR and Standing Loss upgrades)
Phase I EVR	July 1 st 2010	July 1 st 2014
Phase II EVR	N/A (The initial deadline of 1/1/12 has been postponed until a system is certified. In the meantime a Pre-EVR system is required).	N/A



DISTRICT CONTACTS

Compliance Vapor Recovery Coordinator

- ▣ Randy Smith – randy.smith@sdcounty.ca.gov Phone: (858) 586-2677

Air Quality Inspectors

- ▣ John Gervasi – john.gervasi@sdcounty.ca.gov Phone: (858) 967-6248
- ▣ Mathew Allison – mathew.allison@sdcounty.ca.gov Phone: (858) 967-9766
- ▣ Tim Wolff – tim.wolff@sdcounty.ca.gov Phone: (858) 967-6241
- ▣ Nancy Burgeson- nancy.burgeson@sdcounty.ca.gov Phone: (858) 967-2781

Business Assistance

- Eric Luther – eric.luther@sdcounty.ca.gov Phone: (858) 967-6383

SDAPCD Website/List Server/Permit Attachments

- ▣ <http://www.sdapcd.org/index.html>
- ▣ <http://www.sdapcd.org/comply/vapor/VRattach.html>

ARB Website/List Server

- ▣ <http://www.arb.ca.gov/vapor/vapor.htm>